

example, farmers, landowners and communities have always welcomed trappers and provided them access to their lands. Trapping regulations in Kansas allow beaver populations to be controlled at stable, healthy levels, while also keeping human-beaver conflicts at a minimum. Kansas Department of Wildlife and Parks furbearer biologist Matt Peek said, "It's a mutually beneficial relationship between the trapper and landowner." Trappers assist landowners at no cost, and trappers benefit by monetary value of pelts. As a result, beavers are considered a valuable resource.

Colorado has experienced an increasing number of beaver problems. In 1996, the voters of Colorado passed an amendment banning the use

of both leg-hold and kill traps. The agricultural exemption of the amendment allows farmers to trap beavers during one 30-day period a year, but most residents cannot do anything to control damage. The most problematic animals are lone male beavers living along the stream banks, which makes them difficult to trap, compared to colonies living in lodges or dens. Nonlethal methods involve wrapping individual trees, using electrified fencing, and applying paint and sand to bark. These methods are time consuming and are only partially effective. Alternative methods in Colorado include live-trapping and shooting. These are not permanent solutions, considering the ever-increasing number of beavers and the related problems they cause. *

Birth control is not for everyone: a response

ALLEN T. RUTBERG, Center for Animals and Public Policy, Tufts-Cummings School of Veterinary Medicine, 200 Westboro Road, North Grafton, MA 01536, USA allen.rutburg@tufts.edu

IN HER SOAP BOX critique of wildlife contraception (*HWC* 2007), Elizabeth Bingham makes 2 basic points (if she will forgive my distillation of a complex set of arguments). She argues, first, that wildlife contraception is too expensive and too slow to act to meet the needs of farmers, ranchers, and other business people who suffer losses from wildlife damage. Second, she argues, inflated expectations for the problem-solving capacity of wildlife contraception are driving more attention and research money into wildlife contraception than a more hard-headed evaluation would warrant.

These are fair criticisms, but I believe they suffer from narrowness of perspective. Let me deal with the second criticism first. Ms. Bingham is absolutely right that, at least in some quarters, expectations for wildlife contraception are seriously inflated. Contrary to what people have told me, contraception will not solve New Jersey's (or Wisconsin's) deer problem, replace hunting, or spare suburban motorists from ever hitting a deer.



Allen T. Rutberg

On the other hand, contraception shows a lot of promise in mitigating suburban conflicts with deer and resident Canada geese, reducing coyote predation on lambs, reducing ecological impacts of wild horses on eastern barrier islands and western public lands, and even slowing the growth of elephant populations on African wildlife reserves. And in the broad scheme of things, very little money is being spent on wildlife contraception. The 2005 federal commodity payout to 1 average farm in the top 20%

of subsidy recipients would generously cover all expenses for a very nice deer contraception field study; 3 or 4 such subsidies would fund the whole deer contraception research program of The Humane Society of the United States. Really, funding for wildlife contraception research is small change. And many of those nickels and dimes are now being spent to tackle the issues of cost-efficiency that Ms. Bingham raises.

Still, I think Ms. Bingham is correct that contraception is unlikely to play a major role in reducing or eliminating damage to crops and nurseries. For this to happen, the United States

needs to invest heavily in developing the kind of bio-engineered transmissible contraceptive agents, as the Australians have done. More desperate than we, they hope to target hundreds of millions of introduced European rabbits, red foxes, and other species. (I do not think we will do that—too scary.)

But in Ms. Bingham's critique, I believe I also hear a note of vindictiveness. The problem with contraception, as she framed it, is that "the same individuals or populations that caused the problems to begin with are still alive and well," and to fix this problem, we have to kill these varmints.

On one level, this view fundamentally misrepresents the idea of population management. To reduce damage you want fewer critters, and in theory you can accomplish this by stopping reproduction; animals do die, whether you hasten the event by shooting them or not. As it turns out, even using the crude first generation of immunocontraceptive vaccines, we have managed modest reductions in populations of suburban deer and barrier island horses. So you don't necessarily need to kill animals to reduce wildlife populations (and their impacts).

On a deeper level, though, focusing our frustration and enmity on "nuisance wildlife" evades our own responsibility for creating these messes to begin with. In suburban and rural landscapes, deer, geese, coyotes, blackbirds, and gulls thrive because we have handed them the wherewithal to do so.

In my view, the impulse toward wildlife contraception was spawned in part by a kind of diffuse suburban guilt about the destruction we've wreaked on the land and on the wildlife that inhabits it. Many suburbanites, holding values both humane and ecological, feel that we owe it to the few creatures who still thrive among us to spare their lives whenever possible. In my experience, lots of suburbanites feel that way; it's not just bunny-huggers.

The tone of Ms. Bingham's critique suggests that suburban guilt has been slow to penetrate the more utilitarian culture that inhabits the agricultural landscape. But farmers, or at least the government-protected and subsidized agribusinesses that now dictate U.S. farming practices, have as much to feel bad about as suburbanites. Aldo Leopold's landscape of brush piles, coppices, hedgerows, marshes, and trout streams is

gone, replaced in large measure by enormous, irrigated, fertilized, pesticide-saturated, laser-leveled, high-yield corn-and-soybean factories. Gone with Leopold's landscape is much of the diverse wildlife it supported.

Much of what wildlife remains are the smashingly-successful human symbionts; wildlife damage to agriculture has scaled up to keep pace with our production systems. Although wildlife contraception will soon take its place in the toolbox of those whose job it is to solve human–wildlife conflicts, no technical fix—not contraception, shooting, translocation, or scare devices—can do more than nibble around the edges of the problem. True solutions will require us to disseminate the humane and ecological impulses that spawned wildlife contraception in the first place, and then to direct those impulses toward preserving and restoring rich and biologically diverse landscapes in suburb and farm alike. *

Literature cited

Bingham, E. 2007. Birth control is not for everyone (or everything). *Human–Wildlife Conflicts* 1:12.

ALLEN RUTBERG conducts research on wildlife fertility control and suburban human–wildlife conflicts as a research assistant professor at the Tufts Center for Animals and Public Policy. He also serves as a consultant with The Humane Society of the United States.